

C-A OPERATIONS PROCEDURES MANUAL

(Booster/AGS Ring Power Supply Systems Group Procedure EPS-W-003)

Note: This document was formerly a C-A Group Procedure. The content of the group procedure was reviewed by the Technical Supervisor. All approvals and/or issue dates of the original group procedure are maintained for present use.

Hand Processed Changes

<u>HPC No.</u>	<u>Date</u>	<u>Page Nos.</u>	<u>Initials</u>

Approved: Signature on File _____
 Collider-Accelerator Department Chairman Date _____

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Booster/AGS Ring Power Supply Systems
Group Procedure EPS-W-003
Original date: 03/26/02
Revision A

1.0 **Procedure:**

Procedure to follow if we are running Westinghouse in the winter months when weather is cold and we have to turn the mg set off

2.0 **Preparation for Motor-Generator Set being Off:**

- 2.1 Open 120VDC knife switches for CB-52M and CB-52B.
- 2.2 **LOTO** the CB-52M, FDS'S for brake power supply and exciter power supply.
- 2.3 **TURN OFF** the three fans blowing air into the MG Room.
- 2.4 **UNPLUG** the 208 3 phase plug for blower which is forcing air into the oil pit.
- 2.5 **PLUG IN** the 208 3 phase plug for the heater for the oil pit.
- 2.6 **COVER** the hole-opening in the oil pit where the blower was forcing air down into the pit using 2x6 wood to cover the hole.
- 2.7 **PLUG IN** the 120vac plug which is located near Ped #2 oil return line. This is a 120VAC pipe heater for the return oil line for Ped#1.
- 2.8 **PUT TWO 15KW HEATERS** Next to Ped #1 and try to keep this ped warm.
- 2.9 **TURN ON** motor and generator stator heaters if we will be off for more than 2-3 hrs.
- 2.10 **VALVE OFF** the chilled water use to cool the heat exchange for the liquid rheostat water.

Note:

When reopening water valve, open valve 7 ½ turns.

Note:

As of 3/26/02 open valve only 6 turns

- 2.11 If it is severely cold outside and we will be off for more than 1-2 hours then place the heaters in the inductor houses outside over at Siemens Bldg. 928.
- 2.12 Leave lift pumps on unless this is why we are off to repair something on one of the lift pumps. It is to our benefit to keep the lift pumps on and the oil circulating to try to keep the oil warm and the viscosity of the oil thin so it will not overflow through the seals on Ped #1 when we have to restart the MG Set.

3.0 **Turning back on after the above has been done**

- 3.1 Remove heaters from the inductor houses at Siemens Bldg. 928.
- 3.2 Open water valve located above liquid rheostat for the Liquid rheostat heat exchanger 7-1/2 turns.
- 3.3 Turn off monitor and generator stator heaters.
- 3.4 Turn off and move the two 15KW heaters away from Ped #1.

- 3.5 Unplug pipe heater on the return oil pipe for Ped #1.
- 3.6 Uncover oil pit hole where blower forces air into pit.
- 3.7 Unplug 208 3 phase heater for the oil pit and plug in the 208 3 phase blower for the oil pit.
- 3.8 Unlock and turn off the FDS for the brake power supply and the exciter power supply.
- 3.9 Rack in CB- 52M
- 3.10 Close 120VDC knife switches for CB-52M & CB-52B.
- 3.11 Turn on the 3 fans for cooling the MG Room.
- 3.12 Now you are ready for the normal MG set, turn on procedure.